DENDROTETTIX QUERCUS PACKARD.

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The name of the above insect is an excellent illustration of confusion resulting from the use of manuscript names of insects before the species is described. The pertinent literature of this genus and species is as follows:

1887. Bruner, Bull. No. 13, Bur. Ent. Dept. Agric., p. 17–19. (Describes nymphs from Texas and discusses habits of the adult, including flight. No technical name used.)

1888. Riley, Proc. Ent. Soc. Wash., Vol. I, p. 86. (Mentions the genus *Dendrotettix* and the species *quercus* as new, gives locality as Missouri and expresses the intention of describing in the near future but here gives no characters at all.)

1890. Packard, Fifth Rept. U. S. Ent. Comm., p. 214. (Quotes in full the article of Bruner in 1887 and uses the name *Dendrotettix quercus* Riley MS.)

1891. Bruner, Can. Ent., Vol. XXIII, p. 191 and Ins. Life, Vol. IV, p. 20. (Uses the name *Dendrotettix longipennis* but mentions no characters other than the statement that both long and short winged specimens occur. The material here discussed is from Texas on oak and the statement is made that specimens taken in Missouri, also on oak, were described by Riley under the above name.)

1893. Riley, Ins. Life, Vol. V, p. 254. (Gives a good description of the genus *Dendrotettix* and of the species *longipennis*, the latter from 2 ♂ and 3 ♀ specimens from Texas. He also states that the specimens found in Missouri and formerly referred to by himself as *quercus* is probably of no more than varietal distinctness and is designated as *Dendrotettix longipennis* var. *quercus*.)

1897. Scudder, Rev. Melanopli, p. 91. (Uses generic name *Dendrotettix* with Riley as authority, dating it from 1893 but mentioning the 1888 reference as consisting of name only. The name of the species is given as *quercus* and the authority for it is given as Riley, both in this reference and in the Catalog of U. S. Orthoptera published three years later.

Considering the above articles chronologically from systematic and nomenclatorial viewpoints we at once dispose of the first one,

Bruner 1887, as there is no scientific name at all used. The second reference, Riley 1888, is likewise passed over as no characters are there mentioned. We now come to the third reference, Packard 1890. Here a scientific name, *Dendrotettix quercus*, is used in connection with a printed description of structural characters. This fills all requirements for the valid establishment of genera and species and thus the genus *Dendrotettix*, with *quercus* as type, is to be credited to Packard, the first to validate it. The facts that Packard quotes Bruner's article of 1887, that he uses Riley's manuscript name and that the characters are described from immature specimens do not lessen the validity of the names established.

Now comes the question of the types of *Dendrotettix quercus* Packard. It seems obvious that the types are the nymphs from which Bruner drew up the description given in his article of 1887 and quoted by Packard in 1890. In the paper in which these nymphs are described Prof. Bruner states that specimens accompany the report, which was on an investigation made by him as an agent of the Division of Entomology of the U. S. Department of Agriculture. It is to be supposed that specimens of these nymphs were included, and, indeed, there are now in the National Museum, which has long been the depository of material gathered by the Division of Entomology, three nymphs from Texas which are evidently ones sent in by Bruner as they fit his description very well and bear the collection label of Prof. Riley as did all mateiral of this nature added to the collection in those days. One of these three nymphs, a female with wingpads as long as the pronotum, is therefore here designated as the type of *Dendrotettix quercus* Packard.

That *D. quercus* is the long winged form is clear from the well developed wingpads of the nymphs and from the statement in Prof. Bruner's report of the extended flight of the adults. Thus both specific names, *longipennis* and *quercus*, pertain to the macropterous form.

Regarding the author of the specific name *longipennis* there may also be some difference of opinion as the first use of that name was by Bruner in 1891. But no differentiating character was mentioned at this time, merely the statement that both long and short winged forms occur. Dr. Riley in 1893 was the first to vali-

date this specific name and it is, therefore, to be credited to him. As stated above, this name falls into synonymy under the earlier established name *quercus*.

Considerable damage was done by the above locust during the past season near New Lisbon, N. J. Concerning them and the damage they did Mr. H. B. Scammell writes as follows: ". . . they infested the oak woods near New Lisbon, N. J., to an alarming extent. Some of the tallest oaks were nearly defoliated . . . The area infested approximated two square miles." Macropterous individuals and nymphs of both sexes were received from the collector for determination but no brachypterous specimens were sent. However, it is quite likely that both long and short winged forms were concerned here as in the case of injurious occurrence reported by Mr. Davis in 1912, Ent. News, Vol. XXIII, p. 2.

SOME TIPULID SYNONYMY.

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The following notes are published as a sequel to those given by me in the *Annals and Magazine of Natural History* (8) XI, p. 578–584.

1. In the Canadian Entomologist 1913, p. 200–205, Alexander has described two Japanese species under the names *Dicranomyia japonica* and *D. nebulosa*. From the long subcosta and the structure of the male forceps it is clear that these two species belong to the genus *Limnobia*. Moreover, in *japonica*, the radial cross-vein is considerably removed from the tip of R_1, a structure which, as pointed out by Osten-Sacken, never occurs in *Dicranomyia*. Edwards (in letter) agrees with me as to the systematic position of these species, and I think there can be little doubt that *D. eiseni* Al., too, is a *Limnobia*. *D. gloriosa* and *lutzi*, both described by Alexander, should in my opinion also be placed in *Limnobia*, at least until the forceps in the still unknown males proves to be of the *Dicranomyia* type. Alexander's conception of these two genera seems to be so different from that of Osten-Sacken and all